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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/030,178	03/11/2002	Harald Martin	P21939	4568
7055	7590	05/24/2005	EXAMINER	
GREENBLUM & BERNSTEIN, P.L.C. 1950 ROLAND CLARKE PLACE RESTON, VA 20191			RODRIGUEZ, JOSEPH C	
			ART UNIT	PAPER NUMBER
			3653	

DATE MAILED: 05/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/030,178	Applicant(s) MARTIN ET AL.	
	Examiner Joseph C Rodriguez	Art Unit 3653	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 5/12/05
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 21-54 is/are pending in the application.
- 4a) Of the above claim(s) 42-52 and 54 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 21-38, 41 and 53 is/are rejected.
- 7) ☒ Claim(s) 39 and 40 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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Final Rejection

Applicant's arguments filed 10/29/04 and 5/12/05 have been fully considered but they are not persuasive for reasons detailed below.

The 35 U.S.C. 112 rejections are maintained or modified as follows:

These rejections have been withdrawn in view of the newly presented claim set.

The prior art rejections are maintained or modified as follows:

Claim Rejections - 35 USC § 102/103

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 21-25, 27-32, 38, 41 and 53 are rejected under 35 U.S.C. 102(b) as anticipated by Uemura et al. ("Uemura")(US 4,308,806) or, in the alternative, under 35 U.S.C. 103(a) as obvious over Sawai et al. ("Sawai")(JP '309 A).

Uemura teaches a process comprising introducing waste products into a funnel-shaped chamber (Fig. 1, 2, near 28 or Fig. 10, near 74); introducing air into said chamber substantially axially (Fig. 1, 2, near 16, 19 with double walls 27 and 26 or Fig. 10, near 84, 86, 88); introducing waste gases (col. 6, ln. 32-49 or thru 82, col. 9, ln. 43-col. 10, ln. 48) into said chamber substantially tangentially (col. 4, ln. 60-63 teaching "horizontally disposed in the circumferential direction" and col. 6, ln. 32-49 teaching gas being delivered in a "vertical and circumferential" direction; see also arrows in fig. 2 and 3, near 16, 24) and then downwardly discharging decomposed products (near 25; col. 1, ln. 15-col 2, ln. 43). That is, the oxidizing gas introduced tangentially by Uemura can be regarded as a waste gas that is preheated as Uemura teaches recycling and reusing said heated exhaust gas as said oxidizing gas (col. 9, ln. 43-col. 10, ln. 48; see fig. 10, lines from 82; see also fig. 11, preheater 136). Further, Uemura also teaches a plurality of blowers (82, 92) for regulating air and waste gas flow and a pilot burner for starting burning (col. 4, ln. 41-53).

Uemura as set forth above teaches all that is claimed. However, under an alternative interpretation, the oxidizing gas may not be regarded as exhaust gas in the first embodiment cited above, thus introducing waste gas may not be taught. Uemura, however, already expressly teaches that it is more efficient to re-use the exhaust gas as the oxidizing gas (col. 9, ln. 43-col. 10, ln. 48; see also alternate embodiment as cited above). Sawai also teaches that it is more efficient to recycle and feed exhaust gas into an incinerating chamber to make use of the residual oxygen in said exhaust gas during waste product treatment (English Abstract). Therefore, it would have been obvious at

the time the invention was made to a person having ordinary skill in the art to modify the invention of Uemura by introducing exhaust gas into said chamber for a more efficient waste handling process.

Claims 24, 26 and 33-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Uemura in view of Sawai as applied to claims 21-25, 27-32, 38, 41 and 53 above, and further in view of what is well known in the art as demonstrated by Miyoshi et al. ("Miyoshi")(US 6,321,540).

Uemura in view of Sawai as set forth above teach all that is claimed except for expressly delivering said air under a specific pressure range. This feature, however, is well known in the waste product treatment arts. That is, basic thermodynamics establishes that pressure in a heated system is one of the most fundamental and varied design parameters. Moreover, Miyoshi expressly teaches that the chamber undergoes a wide range of pressures in a waste reactor (Abstract). Therefore, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the invention of Uemura in view of Sawai as is well known in the art.

Response to Arguments

Applicant's arguments that the prior art fails to teach the claimed features are unpersuasive. In particular, Applicant's argument that Uemura fails to teach a tangential supply of waste gases is undermined by a review of the reference. Here, it is noted that Applicant only claims a "substantially" tangential feed and that openings

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disposed in a horizontal direction in relation to a circumference can clearly be regarded as "substantially" tangential especially when regarding the flow pattern depicted in figure 3 (col. 4, ln. 60-63 teaching "horizontally disposed in the circumferential direction" and col. 6, ln. 32-49 teaching gas being delivered in a "vertical and circumferential" direction; see also arrows in fig. 2 and 3, near 16, 24). In view of these teachings, it is unclear how Applicant can argue that only a radial introduction is taught when Uemura clearly depicts a swirling current being created by the "substantially tangential" introduction of gases. Examiner thus seeks clarification on what is being meant by "substantially tangential". Further, Uemura expressly teaches a discharge pipe (25; col. 4, ln. 33) for waste residue underneath the funnel (Fig. 1), thus it unclear how Applicant can argue that dried products are not downwardly discharged and that the discharge of solid and gaseous products takes place exclusively via an upper outlet opening. Therefore, as Applicant's arguments are undermined by a review of the prior art, the claims stand rejected.

Applicant's use of claim language such as "at least one of" and "and/or" (claim 21) lends confusion to claim interpretation, especially when used together, and further undermines Applicant's arguments that the prior art fails to teach the claimed invention. A plain reading of this type of language would support the interpretation that all features described with this language are not necessary to anticipate the claim. However, Applicant now argues that the prior art fails to teach jointly introducing solid and gaseous waste when this feature is regarded as optional. Examiner seeks clarification on what actual features are being claimed. That is, if Applicant is claiming "at least one

of simultaneously and subsequently”, the “subsequent” and separate introduction of solids and gas taught by the prior art should anticipate the claim. Examiner recommends the proper formatting of the claims and the elimination of claim language that introduces multiple claim steps that can be interpreted as optional to clarify the record.

Applicant's arguments that the Examiner's finding of Official Notice is a simple naked assertion is also unsupported by the prior art. Here, Applicant's attempt to base patentability by claiming a specific pressure range is again unsupported by a reading of Miyoshi and a review of the fundamental laws of thermodynamics. Therefore, as Applicant's arguments are undermined by a review of the prior art, the claims stand rejected.

Allowable Subject Matter

Claims 39 and 40 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Election/Restrictions

Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

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In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claims 21-41 and 53, drawn to two methods of separating products
Group II, claims 42-52 and 54, drawn to two devices for separating products

The inventions listed as Groups I and II do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features. Here, the same concepts shared by the apparatuses of group II and the methods of group I are not regarded as "special". That is, the prior art as recited above teaches that the shared concept is not "special" as it is well known, thus Groups I and II lack unity of invention. Further, the apparatus claims have the further distinguishing feature of the gas discharge opening in an upper part of said reaction chamber that provides further support for the lack of unity in the two groups.

Newly submitted claims 42-52 and 54 are directed to an invention that is independent or distinct from the invention originally claimed as these claims present an apparatus claims and only newly presented method claims 21-41 correspond to the original method grouping. That is, the newly presented apparatus claims are distinct based on the lack of unity of invention restriction as recited above. *Further, Applicant has failed to even submit formal drawings of the claimed apparatus features as is required.*

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for

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prosecution on the merits. Accordingly, claims 42-52 and 54 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Specification

Claim Objections

The claims are objected to as the form of claims 21 and 53 are improper. Where a claim sets forth a plurality of elements or steps, as in the instant claims, each element or step should be separated by a line indentation. See MPEP 608.01(m) and 37 CFR 1.75(i).

Examiner has maintained the prior art rejections, statutory rejections and drawing objections as previously stated and as modified above. Applicant's amendment necessitated any new grounds of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a). The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action. A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Conclusion

Any references not explicitly discussed above but made of record are considered relevant to the prosecution of the instant application.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Joseph C Rodriguez** whose telephone number is **571-272-6942** (M-F, 9 am – 6 pm, EST).

The **Official** fax phone number for the organization where this application or proceeding is assigned is **703-872-9326** (After-Final **703-972-9327**).

The examiner's **UNOFFICIAL Personal fax number** is **571-273-6942**.

Further, information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system.

Status information for published applications may be obtained from either Private PMR or Public PAIR. Status information for unpublished applications is available through Private PMR only.

For more information about the PAIR system, see

<http://pair-direct.uspto.gov>

Should you have questions on access to the Private PMR system, contact the Electronic Business Center (EBC) at **866-217-9197** (Toll Free).


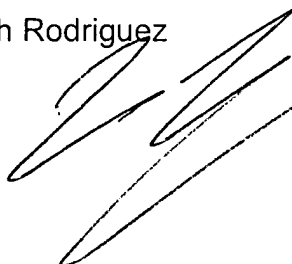
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Alternatively, inquiries of a general nature or relating to the status of this application or proceeding can also be directed to the **Receptionist** whose telephone number is **571-272-6584**. Further, the supervisor's contact information is Donald Walsh, 571-272-6944.

Signed by Examiner Joseph Rodriguez

jcr

May 19, 2005



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